

## EAST Search History

### EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	20	"0104452", "2005035940", "0107860"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 11:14
S2	9	"0107860"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 11:19
S3	122	"5960894", "6082450", "6520258", "5095999", "5544711", "5960894", "6082450", "6520258", "4724767", "5413048", "4669384", "5597974"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 11:25
S4	11	S3 AND COMPOSITE and polymer and fiber\$1	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 11:27

S5	95	"5095999,5544711,5960894", "6082450", "6520258", "4724767", "5413048", "4669384", "5597974"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:00
S6	99	"5095999,5544711,5960894", "6082450", "6520258", "4724767", "5413048", "4669384", "5597974", "6422148"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:01
S7	0	S6 and (composite and meatl and inner and carrier and hydrocarbon)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:04
S8	0	S6 and (composite and meatl and inner and carrier)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:04
S9	25	S6 and (composite and metal and carrier)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:05
S10	22	S9 and ((perforat\$5) and (inner) and (hydrocarbon or water or steam))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:06

S11	21	S10 and hous\$4	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:06
S12	16	S11 and debris	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:07
S13	0	"10574998"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 15:50
S14	0	"10574998"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 18:33
S15	0	"10574998.pn"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 18:33
S16	0	"10574998.pn"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 18:34

S17	13	"5906894"	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/28 18:54
S18	12	"5906894"	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/28 18:55
S19	11	"5960894"	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/28 18:57
S20	956	(166/297).OCLS.	US_PGPUB; USPAT; USOCR	OR	OFF	2008/07/28 19:22
S21	0	S20 and (composite near contai\$3 near debris)	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/28 19:23
S22	1	S20 and (contai\$3 near debris)	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/28 19:24
S23	956	(166/297).OCLS.	US_PGPUB; USPAT; USOCR	OR	OFF	2008/07/29 09:32
S24	26	S23 and contain\$4 with debris	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 09:32
S25	71	S23 and ((remov\$4 or retriev\$4) with (debris))	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 09:36
S26	65	S25 and perforat\$4	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 09:37
S27	461837	"175"/	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 11:16
S28	41016	("175").CLAS.	US_PGPUB; USPAT; USOCR	OR	OFF	2008/07/29 11:16
S29	8	S28 and (perforat\$4 and composite and intact and debris)	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 11:17
S30	3	("5960894"   "6082450"   "6520258").PN.	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 11:29

S31	2	S30 and intact and composite	US_PGPUB; USPAT; USOCR	OR	ON	2008/07/29 11:30
S32	4	"6422148"	US_PGPUB; USPAT; USOCR	OR	OFF	2008/07/29 11:57
S33	858	(166/297).CCLS.	US_PGPUB; USPAT	OR	OFF	2009/03/17 15:35
S34	28704	("175").CLAS.	US_PGPUB; USPAT	OR	OFF	2009/03/17 15:36
S35	1629	S34 and perforat\$3	USPAT	OR	ON	2009/03/17 15:37
S36	802	S35 and (metal or steel)	USPAT	OR	ON	2009/03/17 15:37
S37	1321	S34 and composite	USPAT	OR	ON	2009/03/17 15:38
S38	1041	S37 and (metal or steel)	USPAT	OR	ON	2009/03/17 15:38
S39	824	S38 and shape\$1	USPAT	OR	ON	2009/03/17 15:38
S40	0	(non near frangible near composite)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:01
S41	0	(non-frangible near composite)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:02

S42	0	(non near break\$3 near composite)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:03
S43	8	(perforator\$1 same composite near (material\$1))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:06
S44	5	(non-breakable near composit\$4)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:13
S45	59365	("166").CLAS.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/03/20 20:15
S46	0	S45 and (non-breakable near perforator)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:16
S47	877	S45 and perforator\$1	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:16

S48	5	S47 and (Non near (brittle or frangible or break\$4))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 20:17
S49	7	S47 and (steel near carrier)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 21:04
S50	684	(166/55.1).CCLS.	US_PGPUB; USPAT; USOCR	OR	OFF	2009/03/20 23:52
S51	514	(175/4.6).CCLS.	US_PGPUB; USPAT; USOCR	OR	OFF	2009/03/20 23:53
S52	49	S51 and (perforating near gun near carrier)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/20 23:54
S53	514	(175/4.6).CCLS.	US_PGPUB; USPAT; USOCR	OR	OFF	2009/03/20 23:56
S54	3	(composite near material near non near frangible)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 21:48

S55	0	(composite near material near doesn't near (break or shatter))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 21:50
S56	62508	(polymer near matrix)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 21:51
S57	0	(polymer near matrix near non near frangible)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 21:52
S58	0	(non-frangible near polymer)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 22:01
S59	0	(non near frangible near polymer)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 22:02
S60	11	(non near break\$4 near polymer)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 22:02

S61	0	(non near break\$4 near polymer near matrix\$3)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 22:03
S62	130	(composite near material near polymer near matrix)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 22:15
S63	5	((composite near material near polymer near matrix) same (frangi\$3 or break\$4 or shatter\$3))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/03/25 22:19
S64	85846	(fiber\$1 same (longitudinal or circumferential))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/02 20:33
S65	7137	(composite same fiber\$1 same (longitudinal or circumferential))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/02 20:33
S66	526	(arrangement same composite same fiber\$1 same (longitudinal or circumferential))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/02 20:34

S67	227	(arrangement same composite same fiber\$1 same (longitudinal or circumferential))	US_PGPUB; USPAT	OR	OFF	2009/11/02 20:34
S68	132	(arrangement same composite same material\$1 same fiber\$1 same (longitudinal or circumferential))	US_PGPUB; USPAT	OR	OFF	2009/11/02 20:34
S69	14	(arrangement same composite same material\$1 same fiber\$1 same tension same (longitudinal or circumferential))	US_PGPUB; USPAT	OR	OFF	2009/11/02 21:54
S70	1914	((166/297,55.1) or (175/4.6)).OCLS.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/06/11 17:03
S71	0	S70 and (composit\$3 and ploymer\$3)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/06/11 17:04
S72	85	S70 and (composit\$3 and polymer\$3)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/06/11 17:05
S73	120	S70 and (composit\$3 and (polymer\$3 or ceramic\$1))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/06/11 17:58
S74	68	S70 and (composit\$3 and (polymer\$3 or ceramic\$1))	USPAT	OR	ON	2010/06/11 17:58

S75	3	("5960894", "6082450", "6520258").pn.	USPAT	OR	ON	2010/06/11 18:57
S76	63	S70 and ((carrier or tube or sleeve) same (composite \$1 or ceramic\$1 or polymer\$3))	USPAT	OR	ON	2010/06/11 19:06
S77	3528	((166/297,55.1,299) or (175/4.6) or (102/313,207,312,378)).CCLS.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/06/11 19:10
S78	114	S77 and ((carrier or tube or sleeve) same (composite \$1 or ceramic\$1 or polymer\$3))	USPAT	OR	ON	2010/06/11 19:10
S79	4014	((166/297,55.1,299) or (175/4.6) or (102/313,207,312,378,306,310,312)).CCLS.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/06/11 19:12
S80	122	S79 and ((carrier or tube or sleeve) same (composite \$1 or ceramic\$1 or polymer\$3))	USPAT	OR	ON	2010/06/11 19:12
S81	4014	((166/297,55.1,299) or (175/4.6) or (102/313,207,312,378,306,310,312)).CCLS.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/06/11 20:40
S82	11	S81 and ((carrier or tube or sleeve) same (composite \$1 or ceramic\$1 or polymer\$3) same (reinforced or loaded))	USPAT	OR	ON	2010/06/11 20:40
S83	11	S81 and ((carrier or tube or sleeve) same (composite \$1 or ceramic\$1 or polymer\$3) same (reinforced or loaded))	USPAT	OR	ON	2010/06/11 20:41
S84	1	"4756371".pn.	USPAT	OR	ON	2010/06/11 21:11

S85	1	"6422148".pn.	USPAT	OR	ON	2010/06/11 21:16
S86	50	("2749840"   "2968243"   "3211093"   "3453960"   "3486410"   "3688988"   "3698281"   "4253523"   "4393946"   "4467878"   "4537255"   "4633951"   "4683943"   "4685376"   "4718493"   "4778009"   "4823875"   "4885993"   "4901802"   "4905759"   "4958569"   "5044437"   "5098487"   "5148868"   "5303772"   "5318126"   "5327974"   "5366014"   "5398760"   "5415101"   "5477785"   "5490563"   "5509356"   "5509481"   "5598891"   "5829538"   "5847312"   "5960894"   "5988702"   "6170400"   "6250227").PN. OR ("6422148").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/06/11 21:22

### EAST Search History (Interference)

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